

## **REMARKS**

As a result of this Response, Claims 1-4 and 6-10 are currently pending in the present application. In the Office Action the Examiner rejected the Claims as follows. Claims 1-2 were rejected under 35 U.S.C. §102(b) as being anticipated by “Fundamentals of Artificial Neural Networks” (Hassoun). Claims 3-4 and 7 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,584,684 (Wang). Claims 6 and 8 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wang in view of “Classification of RF Transients In Space Using Digital Signal Processing And Neural Network Techniques” (Moore).

Additionally, the Examiner objected to Claim 1 because of minor informalities.

It is gratefully acknowledged that Claims 5, 9, and 10 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all the limitations of the base claim and any intervening claim.

As an additional matter, in a conversation with the Examiner on September 26, 2006, the Examiner stated that Claim 3 would be allowable if amended to incorporate all the limitations of allowable Claim 5.

Claim 5 has been cancelled without prejudice.

Regarding the objection to independent Claim 1, Claim 1 has been amended to overcome the objection.

Regarding the rejection of independent Claim 1 under 35 U.S.C. §102(b), Claim 1 has been amended and is further distinguished.

A distinguishing aspect of the present invention is the use of a convolutional coder as opposed to a decoder to perform a decoding operation of a received signal (e.g., see, Specification, Paragraph beginning at Line 12, Page 3).

With reference to FIG. 5.4.3 and the second paragraph of Page 257 of Hassoun, a plant is disclosed. The Examiner equates this plant with the coder, as recited by Claim 1.

Hassoun teaches that this plant has an input and an output defined by equation (5.4.3), which discloses a relationship between an output and an input. However, a convolutional coder, as recited by the Claims of the present application, is neither taught nor suggested by cited passage or Figure of Hassoun.

In contrast with that which is disclosed by Hassoun, amended Claim 1 includes the recitation of providing a plurality of successive input symbols to the neural network and to the convolutional coder, which is neither taught nor suggested by Hassoun. Accordingly, as Hassoun does not teach or suggest each and every recitation of Claim 1, it is respectfully requested that the rejection of Claim 1 under 35 U.S.C. §102(b) be withdrawn.

Regarding the rejection of independent Claim 3 under 35 U.S.C. §102(b), Claim 3 has been amended to include the allowable subject matter of Claim 5. Accordingly, withdrawal of the rejection of Claim 3 under 35 U.S.C. §102(b) is respectfully requested.

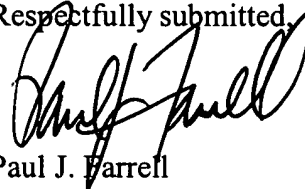
Regarding the rejection of independent Claim 4 under 35 U.S.C. §102(b), Claim 4 has been amended to include the allowable subject matter of Claim 5. Accordingly, withdrawal of the rejection of Claim 4 under 35 U.S.C. §102(b) is respectfully requested.

Independent Claims 1, 3, and 4 are believed to be in condition for allowance. Without conceding the patentability per se of dependent Claims 2 and 6-10, these claims are likewise believed to be allowable by virtue of their dependence on their respective

amended independent claims. Accordingly, reconsideration and withdrawal of the rejections of dependent Claims 2 and 6-8 is respectfully requested.

Accordingly, all of the claims pending in the Application, namely, Claims 1-4 and 6-10 are believed to be in condition for allowance. Should the Examiner believe that a telephone conference or personal interview would facilitate resolution of any remaining matters, the Examiner may contact Applicants' attorney at the number given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Paul J. Farrell", is written over the typed name.

Paul J. Farrell  
Reg. No. 33,494  
Attorney for Applicant

**DILWORTH & BARRESE, LLP**  
333 Earle Ovington Blvd.  
Uniondale, New York 11553  
Tel: (516) 228-8484  
Fax: (516) 228-8516

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